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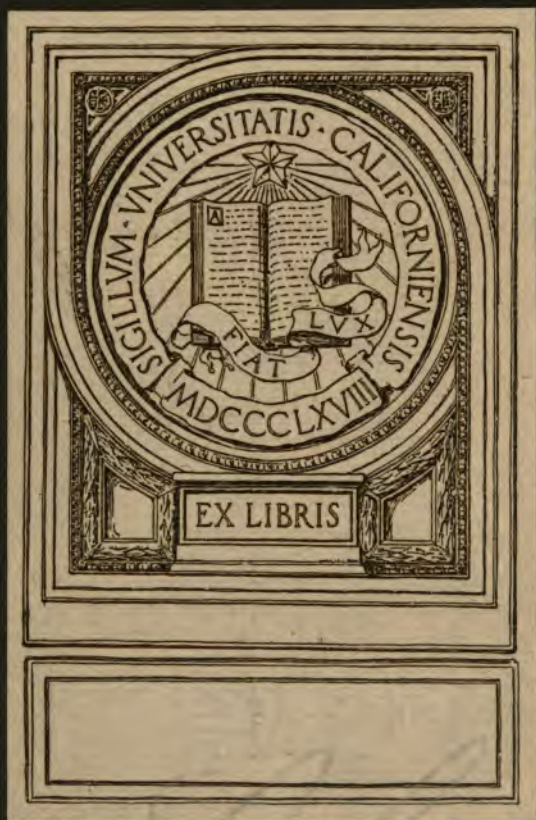
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*The Abridged Debaters' Handbook Series*

SELECTED ARTICLES

ON

GOVERNMENT OWNERSHIP  
OF THE TELEGRAPH

COMPILED BY  
EDITH M. PHELPS

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## EXPLANATORY NOTE

The question of governmental control of the telegraph has been discussed for the last thirty-five or forty years, and is still under consideration at the present time. Postmasters-General Creswell and Wanamaker made vigorous efforts at various times to secure action from Congress, and, in his annual report for 1911, Postmaster-General Hitchcock recommended that a governmental telegraph be adopted as a part of our postal system. It is in this form that the question is debated in the following pages. Necessarily, the reprints in this pamphlet are limited to brief discussions of the arguments for and against the question, and the student desiring a broader treatment of the subject is advised to read as widely as possible from the references listed in the accompanying bibliography.

## BRIEF

Resolved, That the government should own and operate a telegraph system in connection with the postoffice.

### INTRODUCTION

- I. It has often been declared
  - A. That there are serious evils in our telegraph system which would be remedied by governmental ownership.
  - B. That the United States is now the only large country still under private ownership.
- II. It is generally admitted
  - A. That the telegraph system in the United States is virtually a monopoly.
  - B. That the government has the power to establish a system in connection with the postoffice.

### AFFIRMATIVE

- I. There are serious evils in our present telegraph system.
  - A. The system is a private monopoly.
  - B. The companies are greatly overcapitalized and rates are exorbitant.

- C. Facilities are inadequate and the service is poor.
- D. An objectionable influence is exerted over the press and over politics.
- E. Discrimination is practised.
- F. Modern methods and appliances are not used.
- G. Employees are unjustly treated.
- II. These evils would be remedied by a government telegraph operated in connection with the postoffice.
  - A. Rates would be reduced.
  - B. Facilities and service would be improved and extended.
  - C. Discrimination would cease.
  - D. The benefits of the telegraph would be brought within reach of all.
- III. A postal telegraph is both practicable and expedient.
  - A. Control of the telegraph is a proper and necessary function of government.
  - B. The post-office is well adapted to maintain and operate the telegraph.
  - C. There would be little financial difficulty either in its purchase or maintenance.
  - D. The argument that it would lead to political corruption is unsound.
  - E. The chief opposition comes from the existing companies.

#### NEGATIVE

- I. The so-called evils of our present telegraph system do not exist.
  - A. The system is not a monopoly.
  - B. Rates are not excessive.
  - C. Facilities and service are much better in the United States than elsewhere.
  - D. The companies are not overcapitalized.
  - E. Labor is better paid than elsewhere and the system is more progressive.
- II. Government ownership of the telegraph would be unwise.
  - A. It is not a proper function of government.
  - B. It would not be as efficient as our present system.
  - C. It would lead to serious political evils.

- D. It would be unjust to present stockholders and to the public generally.
- III. Government ownership of the telegraph would be impracticable.
  - A. There is no satisfactory way for the government to acquire the telegraph.
  - B. The postal system would not administer it wisely.
  - C. Government operation would result in a large annual deficit.

## BIBLIOGRAPHY

A star (\*) preceding a reference indicates that the entire article or part of it has been reprinted in this pamphlet.

### GENERAL REFERENCES

- \*Annual Report of the Postmaster General. 1911. pp. 14-5.
- Bliss, William D. P. New Encyclopedia of Social Reform.
- See articles on Public Ownership and Telegraph and Telephone Services.
- Brookings, W. Du Bois, and Ringwalt, Ralph C. Briefs for Debate. pp. 126-9. Bibliography. 1911.
- Encyclopaedia Britannica. Vol. XXVI. pp. 525-7. Telegraph—Commercial Aspects. University Press, Cambridge. 1911.
- Meyer, Hugo Richard. British State Telegraph. The Macmillan Co., New York. 1907.
- New International Encyclopaedia. Vol. XIX. pp. 96-7.
- Ringwalt, Ralph C. Briefs on Public Questions. pp. 174-83. Bibliography. 1908.
- \*United States. Industrial Commission. Reports. 9:CCIII-CCXXV; 182-274.
- Western Union Telegraph Company. Proposed Union of the Telegraph and Postal Systems. 128p. 1869.

### *Magazine Articles*

- \*Arena. 15:250-65, -17:9-31. Ja.-D. '96. Telegraph Monopoly. Frank Parsons.
- Century. 59:952-6. Ap. '00. Success of the Government Telegraph in Great Britain. W. S. Harwood.
- Current Literature. 29:235. Ag. '00. Government Telegraph in Great Britain.
- Equity Series. 8:16-22. Ja. '06. Plans for Establishing a Government Telegraph.

Forum. 9:450-60. Je. '90. Public Control of the Telegraph.  
Bronson C. Keeler.

\*Harper's Weekly. 55:22. D. 9, '11. Industrial Securities:  
Telephone and Telegraph Group. Franklin Escher.

Independent. 63:460-1. Ag. 22, '07. National Ownership of the  
Telegraph.

Nineteenth Century. 48:108-17. Jl. '00. Sixpenny Telegrams.  
J. H. Heaton.

North American. 143:35-41. Jl. '86. Should the Government  
Own the Telegraph? William A. Phillips.

Outlook. 94:598-9. March 19, '10. Send Your Letters by Tel-  
egraph.

Public Opinion. 43:399-401. F. 4, '88. Government and the  
Telegraph.

World's Work. 12:7478-9. My. '06. Our Dwarfed Telegraphic  
Service.

See also the annual reports of the Postmaster General, and of  
the Western Union and Postal Telegraph Companies.

#### AFFIRMATIVE REFERENCES

Arena. 26:519-20. N. '01. Why the Government Should Own  
the Telegraph and Telephone. Walter Clark.

Arena. 27:179-87; 28:188-92. F., Ag. '02. Governmental Own-  
ership of the Telegraph and Telephone. Frank Parsons.

Arena. 36:555-6. N. '06. Public Ownership versus Private  
Ownership of Public Utilities.

Arena. 38:373-84. O. '07. Will Public-Ownership Increase or  
Decrease Political Corruption. Clarence A. Royse.

Congressional Record. 34: Appendix 210-2. Postal Telegraph  
and Telephone: Speech of John J. Lentz in the House of  
Representatives, February 20, 1901.

\*Congressional Record. 42: 4688-90. Ap. 13, '08. Naval Ap-  
propriation Bill: Speech of William J. Cary in the House of  
Representatives, April 13, 1908.

\*Congressional Record. 42: Appendix 292-9. Postal Tele-  
graph: Speech of Samuel W. Smith in the House of Repre-  
sentatives, May 30, 1908.

\*Congressional Record. 44: Appendix 168-76. Postal Tele-  
graph: Speech of Samuel W. Smith in the House of  
Representatives, July 19, 1909.

Reprinted from his speech delivered May 26, 1906 and printed in  
the Congressional Record. 40: 7484-91. May 26, 1906.



- \*Forum. 4:561-72. F. '88. Government and the Telegraph. Shelby M. Cullom.
- \*Guntton's. 20:305-22. Ap. '01. Government Ownership of Quasi-Public Corporations. Edwin R. A. Seligman.
- North American. 149:44-53. Jl. '89. Telegraph Monopoly. Richard T. Ely.
- North American. 179:741-7. N. '04. Australian Telegraph System. Hugh H. Lusk.
- Outlook. 100:150\*-1. Ja. 27, '12. Postoffice and the Telegraph.
- Popular Science Monthly. 19:400-3. Jl. '81. Union of the Telegraph and Postal Service.
- Review of Reviews. 27: 337-8. Mr. '03. Government Telegraph and Telephone in Australia. Hugh H. Lusk.
- Review of Reviews. 30:731-2. D. '04. Government Telegraph in Australia.

#### NEGATIVE REFERENCES

- American Journal of Sociology. 12:328-40. N. '06. Public Ownership and Popular Government. William H. Brown.
- \*Arena. 15:245-9. Ja. '96. Why I Oppose Governmental Control of the Telegraph. William L. Wilson.
- Municipal Affairs. 1:245-89. Je. '97. No Government Should Operate an Industry. Allen R. Foote.
- \*North American. 139:51-66. Jl. '84. Government Telegraphy. D. McG. Means.
- \*North American. 149:569-79. N. '89. Are Telegraph Rates Too High? Norvin Green.
- Political Science Quarterly. 3:572-91. D. '88. Public Business Management. Arthur T. Hadley.
- United States. 42nd Congress. 2d Session. Senate Mis. Doc. No. 86. Memorial of the Western Union Telegraph Company Remonstrating Against the Passage of the Bill to Connect the Telegraph with the Postal Service, and to Reduce the Rates of Correspondence by Telegraph.
- United States. 42d Congress, 3d Session. House Mis. Doc. No. 73. Postal Telegraph: Proceedings of the Committee on Appropriations in the Matter of the Postal Telegraph. January 28, 1873.

## REPRINTS

**Annual Report of the Postmaster General. 1911. pp. 14-5.**

### Postal Telegraph Service.

The telegraph lines in the United States should be made a part of the postal system and operated in conjunction with the mail service. Such a consolidation would unquestionably result in important economies and permit the adoption of lower telegraph rates. Post offices are maintained in numerous places not reached by the telegraph systems and the proposed consolidation would therefore afford a favorable opportunity for the wide extension of telegraph facilities. In many small towns where the telegraph companies have offices the telegraph and mail business could be readily handled by the same employees. The separate maintenance of the two services under present conditions results in a needless expense. In practically all the European countries, including Great Britain, Germany, France, Russia, Austria and Italy, the telegraph is being operated under government control as a part of the postal system. As a matter of fact, the first telegraph in the United States was also operated for several years, from 1844 to 1847, by the government under authority from Congress, and there seems to be good ground why the government control should be resumed. A method has been already prescribed for taking over the telegraph lines by section 5267 of the Revised Statutes, which provides that the government may, for postal, military or other purposes, purchase telegraph lines operating in the United States at an appraised value. It is hoped that appropriate legislation will be enacted in harmony with this law providing for the taking over by the government of the existing telegraph systems at terms that shall be fair to their present owners. Every reason for the transmission of intelligence by mail under government control can be urged with equal force for a similar transmission of telegraphic communications. Because of the more exten-

sive organization maintained by the postal service and the freedom from taxation and other charges to which a private corporation is subject the government undoubtedly will be able to afford greater telegraphic facilities at lower rates to the people than the companies now conducting this business.

Forum. 4: 561-72. February, 1888.

Government and the Telegraph. Shelby M. Cullom.

It is urged that the government has no right to interfere with, or to carry on, a private business; but it must be admitted that the transmission of intelligence is, in the strictest sense, a public service. The United States Supreme Court has declared that

"A telegraph company occupies the same relation to commerce, as a carrier of messages, that a railroad company does as a carrier of goods. Both companies are instruments of commerce, and their business is commerce itself. They do their transportation in different ways, and their liabilities are, in some respects, different; but they are both indispensable to those engaged to any considerable extent in commercial pursuits."

From the beginning, the telegraph was recognized as being naturally and properly an adjunct of the postal service, and the action of Congress in the construction and operation of the original line was strictly in harmony with the general idea of the functions of the Post-office Department which prevailed when the government was organized.

The objection most seriously urged against a postal telegraph is, that its establishment would place too much power in the hands of the political party in control of the government, by adding enormously to the already large patronage of the Post-office Department. This objection has not prevented the extension of the postal service hitherto, and will not in the future. The army of employees in the postal service is increasing constantly. The telegraph is properly a branch of the postal service, and there is no more reason to be alarmed at the increase of officials from the addition of a new branch to that system than from the extension of branches now in operation. Practically, there is less reason for alarm on this account in establishing a postal telegraph than in extending the present system. It requires special training and fitness for the work to be a telegraph operator,

and these places could not be given as rewards for political service, as is the case in the post-offices. Besides, as was well said by the late Postmaster-General Howe:

"The increase has doubtless been exaggerated. At a very large percentage of the offices the telegraph operator would not supplement the postmaster, but would supplant him, and that would result in giving to the administration of not a few offices men who have learned to do one thing in place of those who have never learned to do anything."

**Congressional Record. 44: Appendix 168-76.**

Postal Telegraph: Speech of Samuel W. Smith, July 19, 1909.

The Western Union Telegraph Company has repeatedly asserted that rates is a matter of distance, and that the distances are greater here than in England, France, Belgium, and Switzerland, and tables of distances and charges have been presented from time to time for the purpose of proving this assertion, but I will be glad to know what reply they have to make in this connection when rates, distances, and population in Australia are compared with rates, distances, and population in America.

Through the kindness of the publishers of the North American Review I am permitted to use an article on "The Australian Telegraph System," by Hugh A. Lusk, barrister, which appeared in that popular magazine in the November number of 1904:

"The telegraph lines now owned and operated by the Federal Government for the people of Australia have a length of fully 48,000 miles, while the length of the wires is considerably more than a hundred thousand miles. For town and suburban messages—suburban meaning practically a radius of 10 miles beyond the city limits—the rate fixed is 12 cents for a message not exceeding sixteen words, which includes the address and signature. For messages to any point within the same state from which they are sent the charge is fixed at 18 cents for the same number of words. For messages to any other state within the Commonwealth the charge for a message of similar length is 24 cents. In all cases the charge for extra words beyond the sixteen is a uniform rate of 2 cents a word. Delivery is made within a radius of 1 mile from the receiving office, and for this there is no extra charge.

"In the newer, poorer, and far less thickly settled country of Australia there are fully 6,000 post-offices to meet the requirements of 4,000,000 people, or 1 to every 666 people; and more than 3,000 of these are also telegraph stations, being 1 to about 1,300 persons. If every second post-office in this country were also a telegraph station, the public would be nearly as well supplied with the means of rapid communication as the settlers in Australia now are, instead of one-third as well, and they would also be saved a great deal of money. In America it would then be, as it now is in the commonwealth of the South Pacific; each telegraph station would be at the natural center of population, where it would require no separate offices and no separate staff of clerks and operators, except in cities of considerable size. Every country postmaster or clerk would in that case be required also to be a competent telegraph operator, and thus an endless duplication, both of offices and officials, would be avoided.

"Three years ago the American people sent, as nearly as possible, one message over the telegraph wires for each inhabitant. In Australia population is more widely scattered than in America and vastly more so than in England, yet three years ago two and a half messages for every inhabitant of the country passed over the telegraph wires of the government."

The Western Union Telegraph Company was incorporated under act of Wisconsin, March 4, 1856, and act of New York, April 4, 1856, through consolidation of "Erie and Michigan" and "New York and Mississippi Valley Printing Telegraph" companies, with a united capital of \$500,000.

Its present capitalization is \$97,370,000, having increased its capitalization almost \$97,000,000 in fifty years.

The National Board of Trade (by report of executive committee November 15, 1882) says: "In 1858 the Western Union had a capital of \$385,700. Eight years later the stock had expanded to \$22,000,000, of which \$3,322,000 was issued in purchase of competing lines, while nearly \$18,000,000 was issued as stock dividends. This was the first attempt to spread out an increased paper capital which should hereafter afford a plausible pretext for imposing on the public an oppressive tariff of charges. The next step was the purchase of

the United States Telegraph Company, for which purpose \$7,216,300 of stock was issued, an amount alleged to be five times the true value of the property. Next came the absorption of the American Telegraph Company. The stock of that company was almost as much inflated as that of the Western Union and amounted, water and all, to \$3,833,100, yet \$11,833,100 of Western Union stock was issued to get possession of that line."

The following statement of Western Union transactions will give a good idea of their methods:

Table 1.

Original investment .....	\$ 150,000
Original capital (1852) .....	240,000
Capital stock (1858) .....	385,700
Brownsville line, worth \$75,000, bought by issuing stock .....	2,000,000
1863, Western Union plant, worth \$500,000, stock .....	3,000,000
Stock dividends (1863) .....	3,000,000
Total stock (1863) .....	6,000,000
Stock to buy other lines .....	3,322,000
Stock dividends .....	1,678,000
Total (1864) .....	11,000,000
Stock dividends .....	11,000,000
Total (January, 1866) .....	22,000,000
Stock to buy United States Telegraph Company, worth \$1,443,000 .....	7,216,300
Stock for American Telegraph Company, worth perhaps \$1,500,000 .....	11,833,100
Total (1866) .....	41,049,400
Stock dividends .....	5,060,000
Stock for American Union and Atlantic and Pacific companies (worth, together, about \$3,232,000, aside from the franchises), over \$23,000,000, but as Western Union already owned over \$4,000,000 of Atlantic and Pacific the new issue was only .....	19,080,000
Stock dividends .....	15,000,000
Total (1884) .....	80,000,000
Stock for Mutual Union, worth about \$3,000,000 .....	15,000,000
Total stock (1895) .....	95,000,000

Zachariah Chandler, from the Committee on Commerce, in the Senate of the United States, in 1872, said:

"The policy of the Western Union Telegraph Company from the beginning of its existence to the present time has been of a uniform character.

"It has been to ridicule, belittle, cripple, destroy, acquire, consolidate, and absorb all rival lines, until now it virtually controls the telegraph business of the whole country. The statements made in the report containing the history of this company, its unparalleled growth, and future possibilities are eloquent with meaning beyond that expressed in the words. With its network of wires covering the face of the land it holds the incalculable commercial

interests of the people of this nation in its grasp as securely as the spider holds the struggling prey in the meshes of its web."

The Postal Telegraph and Cable Company is only a side show—and I say it respectfully—to the main performance, to wit, the Western Union Telegraph Company, for in the main, where they have offices in the same locality, rates are identical.

A comparison of rates from Washington to points all over this broad Union shows but few slight, if any, differences in the rates charged by these two companies, leading one to believe and understand that this is not purely accidental, but that there must be some common understanding between these two great corporations, and if these conditions exist elsewhere, as they doubtless do, you will at once see that we are not enjoying any advantages by reason of competition, but we are led to the certain conclusion that these two great corporations are in collusion for the purpose of extracting from the people every dollar which they possibly can in order to add to their dividends.

The Western Union and the Postal Telegraph will be found to be the only visible opponents in this effort to secure for the people their just rights.

It is an undeniable fact that the present telegraph companies are honeycombed with rust and inefficiency, loaded with immense amounts of watered stock, and hampered by the most stupid exhibitions of nonprogressiveness to be seen in this enlightened age. It is literally true that in this electrical age, in this electrical country, telegraphy is the only thing touched by electricity that is still in the ox-cart condition.

"Telegraphy is still pounding along with hand labor, very much as Morse devised it nearly seventy-five years ago. It can never be cheap or fast until machinery is used to prepare the messages and to hurl them at higher speed over the wires."

I have no hesitancy in saying that, notwithstanding for many years over the doors of the telegraph companies has been written the legend, "No inventors or scientific men wanted," inventive genius has perfected, tried, and approved machines for telegraphing, which, if put into use, would revolutionize present conditions, and the fact that these

modern inventions are not utilized by the telegraph companies is evidence to me that if they were used it would be apparent to all that telegraphy could be greatly cheapened.

**Congressional Record. 42: Appendix 292-9.**

Postal Telegraph: Speech of Samuel W. Smith, May 30, 1908.

The telegraph service of the United States is the poorest, slowest, and most expensive of any commercial nation. It is likewise the only great telegraph system under private control. If it were necessary the direct relation between these facts could be convincingly shown. The average charge per message in this country, 31 cents, is "three times the average rate in all other countries under post-office telegraph service."

In other countries the excessive and restrictive charges of private telegraph corporations and the right of the people to enjoy the benefits of electrical communication at cheap rates has been recognized by statesmen, and governments have purchased private lines and extended the service. Sir W. H. Preece, for many years engineer in chief of the British telegraph service, says: "Telegraphy became \* \* \* so closely allied with other modes of communication that public opinion in 1868-69 forced the government to purchase and absorb all the telegraph companies." The rates were immediately reduced one-half, and—note this equally important fact—the time of transmission of messages between cities in England has been reduced from two to three hours in 1870, when the government took control, to seven to nine minutes.

We need not discuss the annual British deficit—a deficit, by the way, which has saved the British public more than \$150,000,000 since it began to accumulate—but Vice-President Clark of the Western Union testified that, in his opinion, "It was the policy of extending the telegraph to unprofitable places that caused the deficiency." This extension for the benefit of the people is precisely what government can do in response to demands, and what private ownership will not do.



To argue that government can not conduct business as well or as cheaply as private corporations managed for profit, is contrary to experience. If the people want a government telegraph they will take measures to have it well conducted, and opponents of the idea need not cherish so many misgivings on the political side. Authoritative confirmation of the conviction thus expressed has since been given by Sir William Preece. He says: "The telegraph business of this country (Great Britain) has reached its present dimensions because the work has been done well, and it has been done well because the mode of doing business has been so well and so thoroughly supervised by the public.

"It is amusing after this length of time to read the arguments that were adduced against the absorption of the telegraphs by the state. The objections raised were:

1. It was not the Government's business to telegraph.
2. There would be a loss if it did.
3. The telegraph would be better conducted under private enterprise.
4. The Government rates would be higher.
5. The use of the telegraph would decrease.
6. The Government service would be nonprogressive, with no stimulus to invention, etc.
7. The secrecy of messages would be violated.
8. The telegraph would be used as a party machine.
9. The Government could not be sued.
10. To establish a public telegraph would be an arbitrary and unjust interference with private interests. The companies had risked their capital in the new enterprise, and just as they were about to get their reward the Government was going to take the business away from them. Private enterprise experimented and the people wanted to steal the fruit.

"Every reason has been proved wrong, every prophecy has remained unfulfilled. I can say this with good grace, for I was one of the prophets. The advantages of a state-controlled telegraph system have been amply shown. There has been established a cheaper, more widely extended, and more expeditious system of telegraphy; the wires have been erected in districts that private companies could not reach; the cost of telegrams has been reduced not only in their

transmission, but in their delivery; the number of offices opened has been quadrupled; a provincial and an evening press has been virtually created."

The average rate for telegrams in this country has advanced from 31 cents in 1902 to 33.7 cents in 1907. Proof that the charges are too high is shown by the relatively small proportion of the people who use the telegraph. President Green stated that the proportion of social messages in this country was about 8 per cent. In England the proportion is ten times as large, and on the Continent social messages constitute two-thirds the entire business. It is thus evident that there is in this country an immense volume of telegraphic business that has not been developed and which awaits only adequate rate reductions to come forth.

The effect of changes in rates in different countries is well shown by the following quotations, taken from good sources:

Great Britain. A reduction of 33 per cent on three-tenths of the messages and 50 per cent on the remainder caused an increase of 100 per cent in about two years.

The social business is said to be four times as large as in this country—eight times as large in proportion to population.

Canada. A reduction which applied to less than 10 per cent of the business augmented it 25 per cent in the first year.

Belgium. These reductions have caused four times the number of dispatches that would have been sent at the old rates.

Switzerland and Belgium. A reduction of one-half in the rates produced a double business in one year.

Australia. Australians send more than twice as many messages over the lines at the lower rates as Americans do at the present prices.

Prussia. A reduction of 33 per cent in the rate was followed by an increase, in the very first month after the change, of 70 per cent in messages.

Switzerland. The Swiss inland rate was reduced 50 per cent \* \* \* and in the first three months there was an increase of 90 per cent in messages.

If the statistics possess any significance whatever, they reveal immense possibilities in telegraph development in this

country through cheapening the tolls. People can not afford to use the telegraph freely when they must pay from 25 cents upward for ten words. **The minimum charge possible with improved methods and profitable returns to an operating private company is lower than the world has yet experienced, and would lead to a volume of correspondence by wire impossible to estimate from any known data.** At the same rates a Government system would pay for itself in a few years.

President Green stated that 46 per cent of the Western Union business was brokerage and exchange, the kind known as speculative; 12 per cent was press business, 34 per cent legitimate trade or general commercial business, and only 8 per cent social. Thus it appears that the companies are not serving the public generally, but only a small part of the public that can afford to pay the high tolls because of the nature of the business done or the absolute necessity to use the telegraph.

Referring to the statement of President Green that 40 per cent of the business of his company was stockjobbing and speculative deals in futures, it ought to be considered that this kind of business is the kind that the Western Union has specially fostered, even to the extent of subordinating to it the regular commercial business. It is the only business that is done with telegraphic promptness, and presumably it is the most profitable.

**Arena. 16: 70-84. June, 1896.**

**Telegraph Monopoly. Frank Parsons.**

The ninth evil of our telegraphic system is discrimination. Sometimes the discrimination takes the form of refusing to render certain services to certain persons. Sometimes the company refuses to receive any messages at all from certain persons or for certain persons, or declines to allow certain messages to go over its wires. At other times the discrimination consists in delay, confinement of market reports or other news to a few favored individuals for an hour or two, transmission by devious routes, violations of the due order of transmission, unjust distinctions as to rates,

giving rebates to favored individuals, persecuting others to compel their submission to the telegraph managers or to punish them for a personal difference.

The Washburn committee reported that "rules of precedence in the transmission of messages are systematically disregarded by the leading American company".

"Stock exchange business has the right of way over the wires in preference to any communication of a personal or social nature".

The directors and managers of the Western Union are stock speculators and they favor their own class.

By means of discrimination in rates or service or both, the telegraph company can turn the tide of business and prosperity toward a locality or an individual, or it can hinder the growth of a city and ruin a tradesman or a newspaper by excessive rates or delaying messages, governing persons and places somewhat as a railway does by means of freight and passenger rates, the supply or non-supply of cars, and the quickness or delay of transportation.

This brings us to the tenth evil of our present system of distributing intelligence, viz., the infringement of the liberty of the press. The Western Union and a number of leading newspapers have formed a sort of double-star monopoly for mutual advantage and protection against competition. The understanding between the telegraph company and the press associations secures to the latter low rates and the power of excluding new papers from the field, and to the former a strong influence upon press dispatches, the support of the papers in such associations, and the exclusive right to transmit and sell the market quotations. Besides the force of direct agreement and the powerful motives of mutual support that naturally develop between two individuals or corporations working together year after year with an ever-present consciousness in each of the vital relation to its prosperity that is sustained by the other,—besides all this, the men who run the Western Union control a number of papers directly, and can control others whenever it may be thought best. The Western Union not only has the power of causing serious loss to newspapers that oppose it,—it has millions with which to buy the stock of an obnoxious paper, so capturing the fortress entire and spiking the guns or turning them against its enemies.

**United States. Industrial Commission Reports. 9: 190-1.**

**Telegraph System. Frank Parsons.**

The treatment of labor by our telegraph system is, I think, one of the most objectionable features of the management. According to the testimony of telegraph employees in various investigations and congressional hearings, a systematic policy of reducing wages has been pursued by the telegraph monopoly. They have put boys to work in the offices to learn the business, and then if the operator resigned or moved away or did not prove satisfactory, or if for any other reason his office became vacant, they would offer the place to this young student or apprentice at \$5 or \$10 less than the salary formerly paid; and in that way and in other ways they have reduced the wage so that, according to the testimony, it was reduced 40% from 1870-1883.

The great strike of 1883 throughout our telegraph system was largely due to the low wages and long hours. They asked for an increase of pay of 15 per cent and for 8-hour work, and no salary lower than \$50. These requests, moderate as they were, were refused, and the great strike was fought out at a cost altogether of over \$1,000,000, and after the strike, according to Western Union testimony, the result was that the company was able to get about one-third more work out of the men for the same pay. The hours of operators are in many cases very long, the work is very trying, and they are apt to be affected by consumption and other diseases—unable to continue many years under the strain.

They also blacklist their employees, I understand from the workers, so that the man who meets with their disapproval is practically unable to get employment in the country. They try to shut out the unions of the men, and they even deny them the privilege of petition. The men say that the leaders in presenting a joint request for the amelioration of conditions if found out, are almost sure to be discharged from employment.

The company [Western Union] goes into politics to a certain extent. It has distributed favors among various legislators and among Congressmen, and Western Union testimony is explicit as to the benefits they have received. Long ago the president of the Western Union said:

"The franks issued to government officials constitute nearly a third of the total complimentary business. The wires of the Western Union Company extend into 37 states and 9 territories within the limits of the United States and into 4 of the British provinces. In all of them our property is more or less subject to the action of the national, state, and municipal authorities, and the judicious use of complimentary franks among them has been the means of saving to the company many times the money value of the free service performed."

**Gunton's. 201 305-22. April, 1901.**

**Government Ownership of Quasi-Public Corporations. Edwin R. A. Seligman.**

When we come to the telegraph, what has been said of the post-office applies in the main also to the telegraph service. Unfortunately, in this country the telegraph service is not used by everyone. The charges are apparently so high and the conditions are such that the telegraph is used chiefly for business purposes, and only to a very slight extent for social purposes. In other countries, where the telegraph is an adjunct to the postal system, and where the rates are lower and the facilities greater, the people use it, as everyone knows, to a far greater extent in proportion to the intelligence of the people, than we do. Therefore, from the point of view of possible widespread social interest, the telegraph service ought to be put on a par with the postal service. In the United States postal charges are lower and telegraph charges are higher than abroad. Secondly, as regards the capital invested, while in the case of the telegraph the necessity for the application of capital is somewhat greater than in the case of the post, it is slight as compared with other interests. All that is necessary is to procure enough capital to put up poles and to string the wires, and possibly also to secure certain rights of way. If the government were to attempt to buy out the telegraph lines there would therefore be a capital outlay, but still an insignificant one as compared with that invested in ordinary enterprises for other means of transportation. Finally, in the case of the tele-

graph, the complexity of management would also be a slight factor. Naturally there will be from time to time new inventions in telegraph apparatus. The experience, however, of even such sleepy administrations as those of France and England shows that the telegraph service does contrive to keep on a level with the new inventions. And while the telegraph operators may in some respects be compared to the postal clerks, the government telegraph generally manages to secure a high level of efficiency in its officials.

**Congressional Record. 42: 4688-90. April 13, 1908.**

Naval Appropriation Bill: Speech by William J. Cary,  
April 13, 1908.

Now, let us turn to some of the other advantages of a Government telegraph. In the mere matter of office rental there would be a saving of perhaps a million five hundred thousand dollars a year, inasmuch as the telegraph, being a part of the postal system, would be operated from the Federal buildings in which the post-offices are located. The greatest advantage, however, would be its freedom from bonded indebtedness and stock issues upon which the telegraph companies now pay dividends. Take, for example, the Western Union, which pays a 5 per cent dividend upon one hundred millions of stocks and  $4\frac{1}{2}$  per cent upon thirty-eight millions of bonds. It must earn for this purpose nearly \$7,000,000 a year in excess of its sinking-fund requirements.

But this is not all. If it be estimated that the Western Union is paying an office rental of \$1,500,000 a year in excess of what the Government would pay, it will be seen that a Government-controlled telegraph would save at least \$8,000,000 a year that the Western Union Company must now earn over and above operating expenses and cost, also of maintenance and repair. And this vast sum, which is a practical tax upon the people, would be saved to them. To this sum also should be added the annual tax upon all their properties imposed by many of the states, to say nothing of the cost of light and heat in their vast chain of offices, from Maine to California and from the Great Lakes to the

Gulf, from all of which the Government would be exempt. In these circumstances the Government could reduce the telegraph tolls at least one-half between all points and pay its employees 20 if not 30 per cent in excess of what they are now receiving, and give at the same time a greatly improved service.

**Harper's Weekly. 55: 22. December 9, 1911.**

**Industrial Securities: Telephone and Telegraph Group.  
Franklin Escher.**

In the industrial progress of the country during the past ten years, there is to be found nothing more striking than the growth of the telephone and telegraph business. A glance at the situation as it stands today shows three main companies in the field. In the first place there is the Western Union incorporated sixty years ago, and controlling by stock-ownership or lease a large number of telegraph companies all over the United States. In the second place there is the Mackay Companies, a concern organized eight years ago to act as a holding company for the stocks of the Postal Telegraph and the Commercial Cable companies. Thirdly, there is the American Telephone-Telegraph Company, the outstanding share capital of which is over a quarter of a billion dollars and which holds stocks in companies scattered all over the country amounting to \$356,000,000. Besides these, there are, of course, a large number of independents, but by the "telephone and telegraph group" the security market understands these three great combinations which have been mentioned.

As for the relation of these companies one to the other, American Telephone and Telegraph controls Western Union, and Western Union and the Mackay companies are competitors. Two years ago, when American Telephone acquired a controlling interest in Western Union, the Mackay companies sold out their holdings of American Telephone. Since that time it has been a continuous fight for business between Western Union and the Mackay companies, or, as the public better knows the latter combine, the Postal Telegraph and the Commercial companies.



With business conditions as they are, earnings are holding up remarkably well, and all the time there is developing a strong tendency on the part of business men to make freer use of "wire" facilities. By the introduction of the "night-letter" and the "day-letter," and the hooking up of every Bell Telephone with the Western Union Telegraph system, it has been brought about that long-range business, to a greater extent than ever before, is being done by telegraph and telephone instead of by mail.

**Arena. 15: 245-9. January, 1896.**

**Why I Oppose Governmental Control of the Telegraph.  
William L. Wilson.**

The question of governmental control of the telegraph as a part of the postal system has been under discussion for the past quarter of a century and more, and possesses an attractiveness that will always keep it in some form before the public mind. More than one president and successive postmasters-general have felt called upon to consider the question and to express opinions on one or the other side. Much instructive material is consequently stored away in their messages and reports, especially in the hearings before congressional committees charged with the consideration of proposed legislative measures. Two postmasters-general, Mr. Creswell in 1873 and Mr. Wanamaker in 1890, each with a different scheme, have made vigorous efforts to secure action from Congress. A review of this long agitation in the light of these public documents indicates that, in the country at large, it reached its highest stage during and just after the great telegraphic strike of 1883, when the New York Herald and other influential journals took it up and urged it with force and persistence.

Up to that time propositions for a postal telegraph had contemplated, as a rule, either the acquisition of existing lines by purchase, or the construction of a government system. Such action was beset with so many difficulties, as well of policy as of business detail, that it naturally found but occasional and spasmodic advocacy in Congress, from men whose opinions were influential there or in the country.

Mr. Wanamaker sought to avoid the main objections by proposing a "limited post and telegraph," by the establishment of a bureau in the postoffice department for the deposit, transmission, and delivery of telegrams through the medium of the existing postoffice service.

Many saw in this proposal but an entering wedge to a complete purchase or administration of the telegraphic service by the government, and for that reason stoutly opposed the first steps. Fully recognizing that both the telegraph and the telephone have become, more and more, a part of the equipment of our modern industrial and social life, they cling to the vital idea of our federal polity as a guardian of liberty and a guarantor of justice, and wish to limit its operations to these ends and to those activities which are really governmental. To paternalize the government or make it more bureaucratic is in their judgment to repress private enterprise and to imitate the monarchical systems of the old world.

Here the cost of any business enterprise carried on by the government is greater than it would be in private hands. The postoffice department is no exception to this rule, although much of its work is done through contracts with private persons. The ninety millions now expended, wonderful and grand as are its results, would produce better results if the service could be organized and everywhere administered as our most successful railroad corporations manage their affairs.

Nothing is more certain, were the government to undertake the control or monopoly of the telegraph, than that we should have, at any rates of service the people would expect, a heavy annual deficit, to swell the regular deficit of the postoffice department.

There is to-day immense room for the increase and perfection of our postal facilities, but, policy aside, there is no room for the assumption by the treasury of vast unknown liabilities and of a service to be administered at a yearly loss. Reviewing the controversies of the past thirty years, and acknowledging as I do the merits and attractions of Mr. Wanamaker's scheme, I find myself in accord with the conclusion reached in 1883, by Judge Gresham, especially as that conclusion had been more comprehensively stated

by Postmaster-General Denison years before, in a report to the Senate: "As a result of my investigation under the resolution of the Senate, I am of opinion that it will not be wise for the government to inaugurate the proposed system of telegraph as a part of the postal service, not only because of its doubtful financial success, but also its questionable feasibility under our political system."

**North American. 139: 51-66. July, 1884.**

**Government Telegraphy. D. McG. Means.**

The proposal that the Government should add the business of telegraphing to that of carrying the mails, is listened to with a great deal of favor. It is highly probable that if the proposal were submitted to a popular vote it would be adopted by an immense majority. Most people do not stop to consider either the details or the consequences of such a change. They are very generally prejudiced against the great corporation that controls the telegraphs of the country—with how much reason we need not now consider—and they believe that the Government would do the business cheaper and better than it is now done. If they were asked for reasons for this belief, they would say: The Government has succeeded very well with the Post-office, and it would therefore succeed with the telegraph if it were to undertake it.

There are two assumptions involved in this reasoning: one, that the Government is successful in the management of the Post-office; the other, that the business of sending telegrams is so much like that of sending the mails that the Government can do the former as well as the latter. Neither of these propositions is so self-evident as to be admitted without argument. The Star-route trials showed that a great deal of corruption may exist in the Post-office for a long time before it is discovered; and a very little reflection will suggest many differences between the transmission of letters and telegrams.

Although our Post-office is not in so bad a state as that of England forty years ago, it is certainly not desirable to add to its burdens until it is reformed. To place

the telegraph in charge of the Government can be justified only upon the ground that it will be likely to manage it better than it does the post, or else that the general interest imperatively requires the change to be made. We shall briefly state some reasons for supposing that the Government will be very much less successful with the telegraph than with the post, and for holding that public interest will be prejudiced by the change.

Whenever the operations of Government require the expenditure of capital in permanent works, there is always a terrible waste. The Post-office requires very little expenditure of this kind; but with the telegraph the case is far otherwise. It is not easy to tell what amount of capital has been really invested in the business, but it can hardly be less than \$50,000,000, and it may be double that sum. A very large part of this is invested, and must continue to be invested, in patents, a class of property which it would be particularly undesirable to have the officers of Government concerned in. The art of telegraphy is highly progressive, and to introduce the routine which is the only safety of Government, would be fatal to its further progress. It is not easy to see how the Government could begin its operations without either confiscating or purchasing the patents under which the business is now carried on. To confiscate them would be an odious act of injustice to private persons; but to purchase them would infallibly occasion a frightful expense to the public. The mere transmission and delivery of messages could be performed as well, although not as cheaply, by the Government, as by private persons; but the remainder of the business could be done only at far greater expense.

If the Government of the United States is to go into the telegraph business, three questions will meet it upon the threshold. Will it extend its lines all over the country, or will it confine them to a few favored regions? Will it have a monopoly, or allow competition? Will it hire or buy the existing lines, or erect its own? And back of these is a still more formidable one—will it manage the business upon business principles, charging equal rates for equal services, and making the charges pay the expenses, or will it delude the people by low rates, making up the deficiency by other

taxation? The first of these questions can be answered in but one way. The only justification for the interference of Government is that the interests of the whole people demand it. It must be maintained that it is as much the duty of the Government to enable all its citizens to communicate with one another by the telegraph as by the post, and as non-paying post-routes are supported on this ground, so must non-paying telegraph routes be supported. The answer to the first question takes with it the answer to the second. If the Government allows competition it must lose money. The private companies will abandon to it the non-paying routes and confine themselves to the paying routes. But the only possible way in which the system can be made self-supporting is by applying the profits made upon the paying lines to the support of the others. The Government must buy out the existing companies. Considerations of justice forbid that it should prohibit them from prosecuting their business, and business considerations forbid that it should allow them to do so.

It is impossible to contemplate this prospect without grave apprehension. The probable expense is so vast, and the difficulty of the business so great, that the extravagance and impotence of the department of the navy would cease to be remarkable. There are emergencies when the public interests demand Government interference at whatever cost. In this case it is impossible to show that the public would not be prejudiced by such interference. It is probable that on an average every person in the country receives fifty pieces of matter a year through the mail, while he receives but one telegram. The mail is, of course, principally used by the well-to-do classes, but it is a blessing to the poor as well. The telegraph, however, is used exclusively by wealthy persons. Probably the majority of the inhabitants of this country have ~~never~~ received a despatch. Their simple affairs require no such expedition, and will bear no such expense. But if the Government is to assume the business, it is highly probable that the burdens of the poor will be increased, in order that the rich may enjoy a luxury without paying for it. The deficiency that will certainly result must be met by taxation, which, owing to the method

in which our revenue is raised, must be paid in great part by those who are not benefited by its expenditure.

No measure that involves the increase of the civil service of the United States ought to be adopted, except under the spur of necessity. Some of the more sanguine of the civil service reformers seem to think that reform has been already secured. We are of opinion that they will be disappointed; but however that may be, they have certainly omitted a vital element from their measures in not depriving Government officers of the right of voting. To establish permanency of tenure without this restriction, is to put the administration in possession of a standing army. It would be the height of folly for officers of Government to vote against the party in power. Their position is secure while things remain as they are; it may be endangered by a change, and discipline as well as interest will make them conservative. There is an unfortunate itching for foreign institutions among a certain class of our citizens. They desire to see the General Government of this country endowed with the attributes of the Government of Prussia or Great Britain, regardless of the peculiarities of our constitution. These countries have a highly centralized administration. We have not, and we do not want one. The arguments for Governmental control of the railroads are quite as strong, to say the least, as those for the control of the telegraph. All such schemes are socialistic. They tend to bring upon us those dismal days of the future, when Government shall attempt to support vast hordes of employes in ruinous business ventures, making up its losses by taxing that unfortunate remnant of its citizens who are able to conduct their own affairs at a profit.

**North American. 149: 569-79. November, 1889.**

**Are Telegraph Rates Too High? Norvin Green.**

Within the last twenty-four years, and since that company [Western Union] has been domiciled at the city of New York, more than twenty-five million dollars of its cash earnings, and the proceeds of six million three hundred and fifty thousand dollars of bonds, making nearly thirty-

one and a half millions in cash, have been expended in the construction and extension of its lines and in the purchase of additional telegraph properties; and during the same period twenty-eight million four hundred thousand dollars of its capital stock have been paid for the purchase of the various telegraph companies it has absorbed. Sixty-one and a half millions have been expended in the growth and extension of its system since 1866, in addition to the forty-one millions of capitalization at that date. Its leased properties, including its trans-Atlantic and Gulf cables, represent about twenty-five millions more. With the other and smaller systems of telegraph added, it is safe to say that one hundred and forty millions of dollars have been invested in telegraph properties in this country.

Some of the lines paid for in capital stock were purchased at prices somewhat above the cost of their construction; while against that, over thirty-one millions of cash expended in the construction of lines under railroad contracts, with the assistance of free transportation and labor, would have cost 50 per cent more but for these advantages. The surplus of these investments, unrepresented by any form of capitalization, is now about ten and one-half millions,—more than sufficient to counterbalance the alleged inflations in the early years of the history of telegraph companies. The capitalization as it now stands is not above the cost value of the company's properties, while a distinguished advocate of a government telegraph has repeatedly asserted that he considered the contracts of the company of greater value than its properties.

Having demonstrated the cost of telegraph service, and that it is more than 75 per cent. of the rates charged to the public, the profit out of which interest on bonded debt has to be paid does not appear to be exorbitant; nor does it appear that a further reduction of rates could be reasonably demanded until the increase of business shall have brought about a reduction in the cost of the service. There are few other large corporations that could pay interest on their bonded debt and other fixed charges out of such meagre profits, and have anything left for their stockholders.

In every country of Europe the government owns and operates the telegraph. There is no recognized responsibil-

ity to the customer for errors or delays, and little or no satisfaction afforded in answers to complaints. A sort of stereotyped form of acknowledgment is, substantially, that the matter will be inquired into, and if there be found cause of complaint the employees at fault will be disciplined. That is supposed to end the correspondence, and the complainant never gets any redress or any further information in regard to the erroneous transmission or miscarriage of his message.

Most of the governments find it necessary to control the telegraph for the very reason that its control by the government in this country has been opposed—namely, to protect the government from the people. It is probable that very cheap rates for telegraph service are given to the public to reconcile the people to this enormous engine of power and espionage in the hands of the government. The rates within the comparatively narrow limits of any one of these countries for short distances, rarely exceeding five hundred miles, are generally somewhat lower than they are in the United States. But between any two or more of these government systems the rates are much higher than in this country, while the service is incomparably worse. Every one who has travelled in Europe will testify to that. With rare exceptions their telegraph service is provokingly unsatisfactory.

In an article published in *The North American Review* in November, 1883, the views of an experienced news-gatherer, in regard to the comparative merits of the telegraph service in Europe and America, were given in detail and at some length, showing a state of facts which, according to the experience of those who succeeded him in the extensive use of European telegraphs, still exists. The following extract gives the summing-up of his conclusions tersely and pointedly:

"It has been forced upon my conviction by twelve years of intimate acquaintance with the business in America six years of continuous experience in the same business in Europe that the average time of transmission on the Western Union lines is shorter than on any system in Europe or in any country of Europe; and that the number of errors made by American operators is much smaller than by European operators; and in these respects and all others connected with the principal part of the telegraph service the private companies have made steady and continuous improvement, while the tendency in Europe is to stagnate or retrograde."



Whether from these reasons or the low rates of tolls, or both combined, it is a well-known fact that all government telegraph systems are operated at a loss. In some instances the accounts are so blended with those of other departments of the government that the precise measure of loss cannot be readily demonstrated; but it is not claimed by any government that its telegraph system pays expenses. In Great Britain, however, the accounts are kept more distinct, and the annual statements, showing the gross receipts, expenditures, interest on debt, and deficit of the telegraph department, are incorporated in the annual report of the Postmaster-General.

The last report of the British Postmaster-General that has reached this country is for the fiscal year 1887-'88. A tabular statement, showing the earnings, expenses, and interest on bonds of the telegraph department is given on page 9 of that report, which shows that the telegraph department never did earn any considerable part of the 3 per cent. interest on the bonds given for the purchase and extension of the telegraph, and that since the reduction of the rate in 1884 it has earned no part of that interest; and although the other departments of the government pay full rates for their telegraph service, the earnings have not been equal to current expenses. Leaving out the interest on bonds, the expenses for the last five years stated were more than £160,000 (\$800,000) in excess of the revenues.

But while the European rates are, in most instances, lower for short distances, they are immensely higher for long distances. The rate of forty cents carries the ordinary message from New York, Philadelphia, Washington, or Baltimore to Chicago or St. Louis—a distance of one thousand miles and over; while nowhere in Europe (except between Paris and Algiers over the French Government cable) can the same message be sent that distance for less than twice the amount charged in this country. Messages from Chicago or St. Louis to San Francisco and other points on the Pacific coast, distant from twenty-five hundred to three thousand miles, are transmitted for seventy-five cents, while nowhere in Europe can the same message be sent a like distance for less than four times the tolls charged in this country. Even for the shorter distances, where the mes-

sage is between two or more systems, the European rates are very much higher than those of this country. For the maximum rate of one dollar, a message may be transmitted between the most distant points at which there are telegraph offices in the United States, the extreme distance being something over four thousand miles.

And why should not the rates in the old countries of Europe be lower than in this country? The systems are more compact, the population is more dense, and the lines are located mostly in an open country, requiring less expense for repairs and maintenance. The chief item of the cost of telegraph service is the pay of operators, which in those countries is less than one-half of that paid for operators in this country, while the business is concentrated in a smaller area and on shorter lines. Take, for instance, the British system as compared with that of this country—a system embracing 30,255 miles of line, 178,962 miles of wire, and 6,810 offices, and covering an area of about 129,000 square miles. That system transmitted, during the year 1887-'88, 53,403,429 messages; while over the principal system in this country, covering an area of 3,000,000 square miles, nearly twenty-five times as great, embracing 171,375 miles of line, 616,248 miles of wire, and 17,241 offices, mostly in a sparsely-settled and wooded country, there were transmitted 51,463,955 messages. To do a smaller amount of business by nearly two millions of messages there had to be maintained in this country more than five and one-half times as many miles of line, three and one-half times as many miles of wire, and nearly three times as many offices. With less than one-fifth of the mileage of lines, less than one-third the amount of wire, and with a little over one-third the number of offices, covering one-twenty-fifth part of the area, with cheaper wire, cheaper instruments, and cheaper battery and stationery supplies, and lower-priced labor, the repairs, maintenance, equipment, and supplies on the British system could scarcely cost one-fourth as much as on the larger system in this country. The salaries of operators, messengers, and office employees being less than one-half the rates paid in this country for like service, it should not cost more than half as much to transmit and deliver messages in Great Britain as in the United States, especially tak-

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